42

- 17. (Amended) The nucleic acid of claim 14, wherein the kinase activity of the CAK1 polypeptide activates a *Candida* cyclin dependent kinase.
- 18. (Amended) The nucleic acid of claim 14, wherein the phosphatase activity of the CAK1 polypeptide phosphorylates *Candida* cyclin dependent kinases (cdks).
- 19. The nucleic acid of claim 14, which nucleic acid further comprises a transcriptional regulatory sequence operably linked to said nucleotide sequence so as to render said nucleotide sequence suitable for use as an expression vector.
- 20. An expression vector, capable of replicating in at least one of a prokaryotic cell and eukaryotic cell, comprising the nucleic acid of claim 14.
- 21. A host cell transfected with the expression vector of claim 20.
- 22. A method of producing a recombinant Candida CAK1 protein comprising culturing the cell of claim 21 in a cell culture medium to express said CAK1 protein and isolating said CAK1 protein from said cell culture.

45

- 37. (Twice Amended) A substantially pure nucleic acid comprising a nucleotide sequence which hybridizes under stringent conditions of 6.0 x SSC at 45 °C followed by a wash step of 2.0 x SSC at 50 °C to the nucleic acid of SEQ ID No. 13, and encodes a polypeptide that binds a cyclin-dependent kinase and has a serine/threonine kinase activity.
- 38. (Amended) The nucleic acid of claim 37, which nucleic acid encodes a *CAK1* polypeptide at least 75% identical to an amino acid sequence represented in SEQ ID No. 14.
- 40. The nucleic acid of claim 37, which nucleic acid encodes a polypeptide which functions in one of either role of an agonist or an antagonist of cell cycle regulation of a *Candida* cell.

Please add the following new claims:

41. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence identical to SEO ID No. 14.



- 42. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence at least 90% identical to SEQ ID No. 14.
- 43. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence at least 95% identical to SEQ ID No. 14.
- 44. (New) The nucleic acid of claim 14, wherein the CAK1 polypeptide comprises an amino acid sequence at least 98% identical to SEQ ID No. 14.
- 45. (New) The nucleic acid of claim 37, wherein the nucleic acid comprises a nucleotide sequence of SEQ ID No. 13.
- 46. (New) The nucleic acid of claim 37, wherein the kinase activity of the polypeptide activates a *Candida* cyclin-dependent kinase.
- 47. (New) The nucleic acid of claim 37, wherein the phosphatase activity of the polypeptide phosphorylates a *Candida* cyclin-dependent kinase (cdk).

The claims presented above incorporate changes as indicated by the marked-up versions below.

- 14. (Amended) A substantially pure nucleic acid comprising a nucleotide sequence which encodes a CAK1 polypeptide at least 75% homologous identical to an amino acid sequence represented in SEQ ID No. 14, which CAK1 polypeptide binds a cyclin-dependent kinase and has a serine/threonine kinase activity.
- 17. (Amended) The nucleic acid of claim 14 16, wherein the kinase activity of the CAK1 polypeptide activates a *Candida* cyclin dependent kinase.